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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/715,988  
Filing Date: November 18, 2003  
Appellant(s): FITZGIBBON ET AL.

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Nicholas T. Peters  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 24 February 2010 appealing from the Office action mailed 30 July 2009

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

US 4,408,251	Kaplan	10-1983
US 5,656,900	Michel et al. (Michel)	08-1007
US 5,576,701	Heitschel et al. (Heitschel)	11-1996
US 4,365,250	Matsuoka et al. (Matsuoka)	12-1982
US 4,206,491	Ligman et al. (Ligman)	06-1980
US 4,369,399	Lee et al. (Lee)	01-1983
US 4,305,060	Apple et al. (Apple)	12-1981

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 112***

1. Claims 1-2, 4, 7, 11-12, 14, 17-18 and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

The claim(s) contains subject matter which was not described in the specification

in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Appellant has identified support for the amended claims in the specification as originally filed to be pars. 0021 and 0035 (page 6 line 1+ and page 10 line 1+). The examiner's position is that support is lacking for at least "without consideration length of time of actuation of the close button to effect closure of the barrier." Appellant refers to pars. 0021 and 0035 for support, but these passages lacks any description of effecting closure without consideration of length of time of actuation of the close button. Further, at least pars. 0035-0037 (page 10 lines 1-25) and dependent claims 7 and 17 are concerned with a performing certain functions during certain times and/or functions that vary with time that at least suggest consideration of length of time of actuation. Appellant's originally filed disclosure does not particularly point out the exclusion of the limitation in the claimed without clause.

As stated in MPEP 2173.05(i), any negative limitation or exclusionary proviso must have basis in the original disclosure. The mere absence of a positive recitation is not basis for an exclusion. Any claim containing a negative limitation which does not have basis in the original disclosure should be rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

### ***Claim Rejections - 35 USC § 103***

2. Claims 1-2, 4, 11-12 and 14 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kaplan (US 4408251) in combination with Michel (US 5656900).

Regarding claims 1 and 11, Kaplan discloses an entry control system (100) for permitting authorized users to access a controlled area by moving a barrier, comprising:

a push-button switch 38 generating a coded electrical signal when actuated by a user (col. 4, lines 47-61) and the button operating as a close button generating a close signal (col. 10 lines 56-63);

an entry request device (keyboard 20, col. 4, lines 47-61) for accepting a user authorization code (coded signal sequence, col. 5 lines 9-26);

a controller 22 operably coupled to the entry request device and the close button having an output (fig. 1, col. 5 lines 9-26),

such that the controller receives and authenticates the authorization code (col. 5 lines 9-26) and wherein the close button and the entry request device are disposed in a housing (keyboard housing mounted on door jam in fig 1 and col. 4 lines 47-61, and the receipt of the close signal from the close button automatically causes the controller to issue a close barrier signal at the output in order to close the barrier without the need to authenticate any user authorization code (col. 10 lines 56-63).

Kaplan discloses in col. 10 lines 56-63 that pressing single button may be sufficient to close the door, while pressing a sequence of at least three button inputs is required to authenticate the user to open the door. The single button for closing the door is a close button without authentication as interpreted in light of appellant's disclosure (pg. 9 lines 19-34 and col. 11 lines 3-18). This single button close operation provides the

new limitation of "without consideration of length of time of actuation of the close button to effect closure of the barrier" to the extent understood because Kaplan does not require the button to be continuously pressed.

Kaplan differs from claims 1 and 11 by disclosing a wired connection between keypad 20 and controller 22 instead of the wireless coupling of appellant's claims, but Kaplan does disclose a radio receiver 32 to generate a command signal to open and close the door upon detection of an appropriate radio signal from a wireless radio transmitter (col. 5 lines 27-37). The receiver 32 generates a control signal and is therefor considered to be a controller similar to control unit 22 that also generates a control signal.

Michel discloses analogous art remotely controlled garage door operator to open and close a door in response to a keypad radio transmitter in figs. 1-2 and col. 2 lines 30-52. The keypad is an entry request device and control unit 70 is a controller wirelessly coupled to the keypad.

Regarding claims 1 and 11, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included in Kaplan a radio keypad transmitter as disclosed in Michel for wireless communication to the controller suggested by Kaplan disclosing a radio receiver 32. Alternatively, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included closing of the door in Michel in response to depressing a single key on the keypad as taught by Kaplan for simplified operation. Without consideration of length of time of actuation of the close button to effect closure of the barrier is further suggest by Michel

disclosing closing mode control with no user adjustment in col. 4 lines 22-28.

Regarding claims 2 and 12, a barrier operator (motor 28) communicatively coupled to the controller at the output, the barrier operator receiving the close barrier signal is disclosed in col. 5 lines 9-26 of Kaplan. Michel also includes a motor 72 coupled to a controller 70.

Regarding claims 4 and 14, the entry request device is a small keyboard (20, col. 4 lines 39-61 of Kaplan) also called a keypad. Michel also includes a keypad.

Regarding claim 8, a detector (radio receiver 32) for detecting an RF-ID (radio signal), and wherein the close barrier signal is not transmitted unless the controller detects an RF-ID (col. 5 lines 27-37 of Kaplan). Michel also includes a radio receiver 60.

3. Claims 1-2, 4, 11-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaplan (US 4408251) in combination with Heitschel (US 5576701).

Kaplan was discussed above to include all the limitations of claims 1 and except that Kaplan discloses a wired connection between keypad 20 and controller 22 instead of the wireless coupling of appellant's claims.

Heitschel discloses an analogous art garage door operator system with controller 78 wireless coupled to keypad transmitter 25. See figs. 1, 7 and 9. Wireless coupling allows remote access, while input of a four digit code on the keypad prevents access by a theft. See figs. 1, 7 9 and col. 6 lines 16-30.

Regarding claims 1 and 11, it would have been obvious to one of ordinary skill in



the art at the time the invention was made to have included in the system of Kaplan a keypad wirelessly linked to a controller as disclosed by Heitschel for the same purpose of controlling a barrier wherein entry of a code by key presses prevents use by a thief, and suggested by Kaplan disclosing a radio receiver 32. Alternatively, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included closing of the door in Heitschel in response to depressing a single key on the keypad as taught by Kaplan for simplified operation.

Regarding claims 2 and 12, a barrier operator (motor 28) communicatively coupled to the controller at the output, the barrier operator receiving the close barrier signal is disclosed in col. 5 lines 9-26 of Kaplan. Heitschel also includes a motor (door apparatus 11) coupled to a controller 18.

Regarding claims 4 and 14, the entry request device is a small keyboard (20, col. 4 lines 39-61 of Kaplan) also called a keypad. Heitschel also includes a keypad.

Regarding claim 8, a detector (radio receiver 32) for detecting an RF-ID (radio signal), and wherein the close barrier signal is not transmitted unless the controller detects an RF-ID (col. 5 lines 27-37 of Kaplan). Heitschel also includes a decoder 76.

4. Claims 7 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaplan (US 4408251) in combination with Michel (US 5656900) or Heitschel (US 5576701) as applied above in combination with Matsuoka (US 4365250).

Regarding claims 7 and 17-18, the combination applied above does not expressly

disclose the limitation of wherein the close button changes function after a predetermined time period.

Matsuoka discloses an analogous art garage door operation control apparatus wherein the close button changes function after a predetermined time period. Operation of a command changes function from downward movement (302, close) to stationary (303, stop) in response to a sequence of operation command inputs (col. 4 lines 44-64). The operation command may be input by a pushbutton switch with a time delay TM4 between each command (col. 8 lines 3-33). Therefore, the function changes after time TM4. This allows manual stopping and reversing direction of the door. Such operation may be provided to for safety.

Regarding claims 7 and 17-17, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included in the combination applied above changing the button function from close/down to stop after a time period as disclosed in Matsuoka to allow stopping the door for safety and/or for partial closing. Without consideration of length of time of actuation of the close button to effect closure of the barrier is further suggest by Heitschel disclosing operating a transmitter time generator for a period of time regardless of the time the button is actually pressed in col. 5 line 17+ and col. 6 line 5+.

5. Claims 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaplan (US 4408251) in combination with Michel (US 5656900) or Heitschel (US 5576701) as

applied above in combination with Ligman (US 4206491) or Lee (US 4369399) or Apple (US 4305060).

Regarding claim 21, the combination applied above does not expressly disclose the limitation wherein the generation of the close barrier signals is delayed for a predetermined time after the actuation of the close button.

Ligman discloses an analogous art entry system that may be used with garage door operation (col. 8 lines 10-12) wherein a debounce delay 106 is provide between user input and generation of a control signal to prevent false input due to low power or noisy signal. See fig. 8 col. 7 lines 9-35.

Lee discloses an analogous art garage door controller with debounce eliminator 148 connected to button 110 that provides a delay as in Ligman. see fig. 10 and col. 11 lines 51-62.

Apple (US 4305060) discloses an analogous art garage door operator where a delay is provided to allow comparison of a plurality of input codes so that a plurality of matches are required and a limited number of mismatches are allowed before a control signal is output. This maintains security while allowing for interference. See the abstract and col. 2 line 60 - col. 3 line 10.

Regarding claim 21, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included in the combination applied above the claimed delay in view of the delay in Ligman, Lee or Apple to avoid false input due to low power, noise or interference.

**(10) Response to Argument**

Appellant's arguments with respect to claims 1-2, 4, 7, 11-12, 14, 17-18 and 21 have been considered but are not persuasive for the following reasons:

Appellant's argument that there is no specification that the actuation of the close only button be held for any specific amount of time is not adequate support to overcome the 112 1st paragraph rejection. As stated in MPEP 2173.05(i), the mere absence of a positive recitation is not basis for an exclusion. Further, the limitation of "without consideration of length of time" is contradicted by dependent claims 7, 17 and 18 including the limitation of "the close button changes function after a predetermined time period," such as changing to a stop button. If operation is changed to "stop" after a "predetermined time," then closure is stopped and closure of the door without consideration of a length of time is not effected. See appellant's fig. 6.

The argument that Kaplan teaches away from the combination with Michel or Heitschel is incorrect because Kaplan includes wireless communication that suggests the combination. Since wireless communication is expressly disclosed in Kaplan, wireless communication is not a fundamental change in operation or change in the principle of operation of the reference.

Appellant argues that the keypad of Kaplan always uses a two wire connection for the benefit that the required two wire connection prevents tampering. This argument is not persuasive because it contradicts Kaplan describing a serious shortcoming of two

wire connection being that it is susceptible to tampering in col. 1 lines 38-57:

However, the known exterior key-operated switches and keyless electronic locks are easily tampered with by an intruder who wishes to gain entry into the garage, but who has no key or does not know the lock combination. For example, both the key-operated switches and keyless locks can each be easily physically pulled from the garage door jamb, and thereupon, the intruder can easily short the two exposed control wires to open the garage door. As for the key-operated switches, they can also be overcome by merely picking the lock cylinder.

The aforementioned U.S. Pat. No. 3,978,376 is typical of those keyless electronic locks wherein the keyboard and the control-processor unit are both located exteriorly of the garage on the door jamb. As noted above, a serious shortcoming of this type of system is its susceptibility to physical force which would expose the two control wires. An intruder can easily pull the keyboard with its attached control-processor unit off the door jamb, and thereupon, short the exposed wires to activate the opener mechanism. (emphasis added)

The invention of Kaplan reduces such tampering by using a coded signal sequence responsive to keypad/keyboard operation. Clearly, it is not the wires that reduce tampering, but the coded signals.

Further, the tamper-resistance of Kaplan is concerned with an intruder opening the door to gain entry into the garage. Since the relevant operation closes the door, security can be simplified (col. 10, lines 56-63 of Kaplan) and appellant's alleged high security wired link is not required.

Appellant argues that the keypad of Kaplan always uses a wired connection that could not operate wirelessly. This argument is not persuasive because Kaplan includes a radio receiver to receive codes from a transmitter. The wireless link would also provide coded signals that would avoid the problem of tampering by shorting a wired link.

Heitschel and Michel disclose such a transmitter also including a keypad.

Appellant states that receiver 32 of Kaplan may transmit a control signal from control unit 22 to motor 28. This is incorrect. Kaplan does disclose a radio receiver 32 to generate a command signal to open and close the door upon detection of an appropriate radio signal from a wireless radio transmitter (col. 5 lines 27-37). The receiver 32 generates a control signal and is therefor considered to be a controller similar to control unit 22 that also generates a control signal.

Appellant's argues that the examiner fails to take into account that the signal received by radio receiver 32 of Kaplan is from a different transmitter that is not the keypad. The examiner disagrees. The examiner takes this into consideration by applying a Kaplan in combination with Heitschel, where Heitschel teaches a keypad transmitter wirelessly communicating to the garage door. The user would obviously operate this wireless keypad in the same manner as the wired keypad of Kaplan.

The argument that Kaplan teaches directly away from wireless communication from a keypad by requiring specific sequences or types of button presses by resistance or press timing is not persuasive because Kaplan expressly discloses a use of wireless communication that may use a keypad in view of Heitschel or Michel. Wireless communication would not be a fundamental change in view of Kaplan expressly disclosing wireless communication. Further, col. 6 lines 35-43 of Kaplan clearly states that the keyboard generated "coded signals" are not limited to resistance levels, but may include any combination of resistors, inductors or capacitor. The examiner contends that

such would correspond to frequency generating circuits such as tuned RF oscillators.

Appellant's argument that combinations of resistors, capacitors and inductors cannot be frequency generating circuits is not persuasive because these circuits are commonly known in the art as passive resonant circuits. Passive radio frequency tags and transponders with such resonant circuits are common in the entry control art and often referred to as RFID devices. This section of Kaplan also refers to using voltage references corresponding to amplitude modulated RF signals.

Appellant argues that the signal received by radio receiver 32 of Kaplan is coming from a different transmitter that is not the keypad that requires wired connection. This argument is not persuasive because Kaplan does not preclude the wireless transmitter from including a keyboard. Kaplan's lack of disclosure of details of the wireless transmitter is a suggestion to look to other references such as Michel and Heitschel to fill in the details. Appellant's allegation that only wired connection prevents tampering is incorrect because the radio receiver of Kaplan responds to wireless signals but is still part of the tamper-resistant system.

The argument that Michel is silent regarding "full closure of a barrier ... whenever the close button is actuated," is not persuasive because "full closure" is not recited in the claims. Further, the limitation would have been obvious in view of Kaplan disclosing closing the door in response to one match of key depression of a push button switch of the momentary action type. The tamper-resistance of Kaplan is concerned with an intruder opening the door to gain entry into the garage. Since this operation closes the

door, security can be simplified (col. 10, lines 56-63 of Kaplan) and appellant's alleged high security wired link is not required.

Appellant argues that Michel is silent on the limitation of "without consideration of length of time of actuation of the close button to effect closure of the barrier." This argument is not persuasive because appellant's disclosure is also silent on this limitation and the limitation is further suggest by Michel disclosing closing mode control with no user adjustment in col. 4 lines 22-28. The argument that Kaplan requires a specific timing of switch closures is not persuasive because Kaplan expressly discloses closing the door in response to match of a single key depression in col. 10 lines 56-63. In addition, appellant's "whenever" limitation is contradicted by the specific timing of dependent claims 7, 17, and 18, when another function, such as stopping door movement, is provided.

Further, the above limitation would have been obvious in view of Heitschel disclosing operating a transmitter time generator for a period of time regardless of the time the button is actually pressed in col. 5 line 17+ and col. 6 line 5+.

The argument that Heitschel lacks transmitting resistance or timing is not persuasive because Heitschel transmits a coded signal analogous to the coded signal of Kaplan. Appellant argues that the mere suggestion of wireless transmission of coded information does not make it likely that one of ordinary skill in the art would modify the device of Kaplan to send resistance setting wirelessly against the express teaching that two wire connection is preferred as a secure method of control. This argument is not



persuasive because Kaplan expressly discloses a wireless link and Kaplan does not make any suggestion that the wireless link is any less secure than wired links that can be easily tampered with by mere shorting. Further, the coded signal of Heitschel would included pulses with timing of the timing generator and particular amplitudes detected as voltage levels and frequencies corresponding to complex impedances.

In response to appellant's argument that combination of Kaplan with Heitschel or Michel would change the principle of operation of Kaplan, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Heitschel and Michel teach keyboard transmitters to open/close a barrier and it would have been obvious to have closed the door in response to a press of a single key on the keypad for simplified operation as disclosed in Kaplan.

Appellant argues that the rejections of dependent claims further in view Matsuoka, Ligman, Lee or Apple are not proper because the rejections relying on Kaplan and Michel and Kaplan and Heitschel are not proper. The examiner disagree. The rejections are proper for the reasons stated above.

Appellant's previous argument that Apple does not even relate to moveable barrier operators is incorrect because Apple refers to automatic garage door operators in the

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ABSTRACT. Further, Apple includes code select 5 in the form of a plurality of two position switches that is analogous to a keypad or keyboard.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Edwin C. Holloway, III/  
Primary Examiner, Art Unit 2612    3/30/2010

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